GEARTECH	CHECKLIST				No. CK4300		SHEET 1 OF 2
<b>32</b> , (11 1 2 3 1 1					Rev. A		
Shaft Design Audit					BY RLE		DATE 9/27/99
_					CKD JRM		DATE 9/27/99
				SHAF	T DATA		
Question	Υ	N	R	1		comments	
Do drawings specify the							
following data?							
Shaft dimensions?							
Shaft material?							
Shaft hardness?							
Are the following geometric							
tolerances specified?							
Diameters?							
Lengths?							
Surface roughness?							
Straightness?							
Circularity? Parallelism?							
Radial and axial runout?							
Do fillets clear mating							
components and minimize							
stress concentrations?							
Are keys fitted with an							
interference fit?							
Are keyways designed to							
minimize stress							
concentrations?							
Do inside corners of keyway	/S						
have adequate fillet radii?							
Are edges of keyways							
deburred or chamfered?							
Do keyways not extend into							
bearing journals?  Is shaft material an alloy ste	ol						
with sufficient hardenability							
meet requirements of							
AGMA/AWEA 921-A97 and							
procurement specification?							
,		•	•	ASSI	EMBLY		
Question	Υ	N	R			comments	
Has gearbox assembly been	_						
reviewed to assess risk of							
damage to shaft?							
Are shaft-to-inner race fits							
tight?							
If necessary, are fixtures for	•						
assembly available?		<u> </u>	<u> </u>	DATING			
	1			RATING	CALCULATIONS		
Question	Y	N	R		C	comments	
Have shafts been rated per							
ANSI/AGMA 6001-D97?	72						
Is reliability factor kc = 0.81							
Is fatigue safety factor Fsf ≥ 1.1?							
Is peak load safety factor Fs	sp						
≥ 1.1?							

GEARTECH C	CHECKLIST				No. CK4300		SHEET 2 OF 2
0. 6.5 . 4					Rev. A		DATE 0/07/00
Shaft Design Audit					BY RLE		DATE 9/27/99
	1			T	CKD JRM		DATE 9/27/99
Question	Υ	N	R			Comments	
Is slip torque calculated using peak load?							
Is coefficient of friction f ≤ 0.15?							
Are benefits from keys ignored when calculating torque capacity?							
Are fits for shafts and gears calculated from drawing tolerances?							
Is slip torque adequate to transmit peak load?							
Is deflection calculated using minimum fatigue load?							
Is maximum deflection consistent with load distribution factors?							
Is maximum slope at bearings within bearing manufacturer recommendations?	3						
recommendations:	AC-	MA	/AWI	- -A 921-7	A97 CONFORMA	NCF	
Question	Y	N	R	_, ( 02		Comments	
Do shafts conform to	'		1				
AGMA/AWEA 921: Adequate life?							
Geometric quality?							
Fillets?							
Keyways?							
Metallurgical quality?							
Fatigue safety factor?							
Yield safety factor?							
Shaft/gear slip torque?							
Deflection?							
	-						
		-					
		-					
	+						
	+	+	<del>                                     </del>	<b> </b>			